

that cases differ very much in their amenability to treatment in this way? The facial case seems to have presented considerable difficulty from the fact of the nerve being much degenerated and embedded in cicatricial tissue. The operation was, however, successfully carried out, with relief to the *tic*, and also, strange to say, a rapid improvement of the paralysis. This result is doubly remarkable, as, in all cases we have seen or read of, a very prolonged paralysis of the muscles supplied was the immediate result of the stretching. No doubt there is much still to be learned, both as to the *modus operandi* of nerve-stretching and as to the classes of cases in which it is likely to prove beneficial.—*Med. Times and Gazette*, Nov. 12, 1881.

Stretching of the Lingual Nerve for Facial Neuralgia.

At the meeting of the *Société de Chirurgie* on Nov. 2, M. LE DENTU presented a patient in whom he had successfully practised stretching of the lingual nerve for neuralgia of the face with epileptiform convulsions. The pain was located in the temporal region, auricle, lower jaw, and the left side of the tongue; it had lasted for five years, but in the last few months had so increased in severity as to be insupportable. It was above all in the left side of the tongue that the pain was most acute.

M. Le Dentu had practised stretching of the lingual nerve with a view of relieving the pain in the tongue, but without the least hope of any effect whatever on the other points which were the seat of the neuralgia. After having laid bare and isolated the nerve, the top of the tongue being fixed by a thread passed through it and held by an assistant, M. Le Dentu gently raised the nerve with a small hook about 12 millimetres above the mucous membrane of the mouth, and after maintaining this degree of elongation for a few moments he allowed the nerve to regain its normal position.

M. Le Dentu, in view of the long duration of the disease, did not expect any immediate result. On the second day, however, the patient was able to sleep quietly, and thirteen days after the operation the pains had entirely ceased, not only in the tongue, but also in the temporal region, only remaining in a slight degree above the angle of the jaw. He was able to sleep and eat perfectly well. He therefore may be considered as cured, at least temporarily: it remains to be seen whether his cure will be permanent or not. M. Le Dentu added that he had previously in another case practised, with success, resection of the auriculo-temporal nerve for facial neuralgia.

M. POLAILLON said, that three months before he had stretched the inferior dental nerve for violent neuralgia of this nerve, and the patient has been free from pain since then.

M. MICAISE drew attention to the possibility of more or less grave accident following resection of the facial nerves, particularly after operation on the trigeminal from disturbance of the ganglion of Gasser, or, as M. Tillaux remarked, atrophic ocular troubles may follow operative interference with the superior maxillary nerve.—*L'Union Médicale*, Nov. 8, 1881.

The Diagnosis of Fracture of the Neck of the Femur.

The difficulties in the way of diagnosis of fractures of the neck of the femur when crepitus is absent, or when it is not good practice to try and find crepitus, have lead Dr. J. S. WRIGHT to tabulate his measurements of twenty-one cases of such fractures. His points selected for measurements are:—

(1.) Inside measurements from the superior anterior spines of the ilium to the lower ends of the internal malleoli. (2.) Outside measurements from the

superior anterior spines of the ilium to the lower ends of the external malleoli. (3.) Measurements from the tops of the great trochanters to the lower ends of the external malleoli. (4.) Measurements from the bases of the tibiæ to the lower ends of the internal malleoli. (5.) Measurements from the superior anterior spines of the ilium to a line drawn transversely in front between the tops of the great trochanters. This is the *transverse femoral line*.

The object of all these comparative measurements is to determine the possibility of original asymmetry of the two limbs, and find out, as far as possible, if the injury to the hip has caused any shortening of the limb on the injured side, so that we can infer the *probability* of there being a fracture of the femoral neck.

In the cases reported it may be noted that,

(1.) In all of the twenty-one cases recorded, there was more or less obliteration of the abdomino-femoral—or inguinal—fold on the side of the injury. This was probably due to two causes: (i.) Effusion in front of the injured femoral neck; (ii.) Contraction of the soft parts in front of the femoral neck. (2.) About one-half of the patients were examined standing up; and when the foot of the injured side was brought down to the floor, the gluteo-femoral fold on that side was seen to be lower than the gluteo-femoral fold on the uninjured side. (3.) There was out-rotation of the injured limb in all but two of the cases reported. (4.) In all the cases of impaction of the base of the femoral neck, the upper end of the femoral shaft was materially enlarged. There were probably eight such cases. (5.) In all of the cases of impaction of the top of the femoral neck into the femoral head, the upper end of the femoral shaft was not enlarged. There were probably five such cases. (6.) The other eight cases could not probably belong to either of the above classes. (7.) In all of the cases there was more or less prominence of the outside of the hip, but the gluteal region was somewhat flattened; and generally there was a fusiform enlargement of the upper part of the thigh. (8.) In 14 of the 21 cases, there was more or less asymmetry of the lower limbs. And this point is important for two reasons: First, It was determined by measuring from the tops of the great trochanters. Second, it agrees with the general fact, that about two persons out of every three have asymmetry of the lower limbs: Hence, the above measurements from the tops of the great trochanters to the external malleoli were probably correct: Hence, *such a measurement may be recommended as a valuable aid in making a diagnosis of fracture of the neck of the femur*.

It may be remarked, that a fracture of the inner half of the femoral neck could be intra-capsular, that a fracture of the outer half of the femoral neck could be intra-extra-capsular, that a fracture entirely outside of the femoral capsule could not properly be a cervical fracture, and that the fracture ordinarily called *extra-capsular of the neck of the femur* would be more appropriately called a fracture of the base of femoral neck—except in a few cases where the femoral capsule is inserted so far inward on the femoral neck as to give a sufficient space to fracture the cervical bone outside of the capsule.

In some of the cases there has been impaction of the base of the neck into the trochanteric part of the femur; in others there has been impaction of the summit of the neck—the femoral brace—into the head of the femur; and in others there has been impaction of the femoral neck into both the femoral head and the trochanters. It is generally not difficult to make a diagnosis of impaction of the femoral neck into the trochanters, on account of the usual expansion or enlargement of the trochanteric region. When certain deformities are indicated by the attitude and the measurements of an injured limb—the trochanteric expansion being absent—it may be reasonably inferred that there has been an impaction of the femoral neck into the femoral head.

From his table of measurements of the twenty-one cases the following conclusions may be drawn:—

(1.) The average shortening after fracture of the neck of the femur, as shown by the inside measurement, is about $\frac{5}{16}$ of an inch; as shown by the outside measurement, is about $\frac{5}{16}$ of an inch; and as shown by both measurements, is about one-half inch, $\frac{5}{8}$.

(2.) The greatest shortening was one inch and one-half.

(3.) The least shortening was zero. *But in that case there was an actual shortening of three-fourths of an inch.*

(4.) The average normal asymmetry of the lower limbs in the above 21 cases was $\frac{4}{16}$ of an inch.

(5.) The average shortening of the measurement from the superior anterior spine of the ilium to the transverse femoral line was about one-half inch, again showing that the top of the trochanter major is an approximately accurate point from which to measure.

(6.) In the four following cases the injured limb appeared to be shortened one-fourth of an inch by a comparison of the inside measurements.

On account of the asymmetry of the lower limbs, in Case I., there was the average shortening of one-half inch; in Case VI. there was a real shortening of three-fourths of an inch, and in Case VII. of one inch and one-fourth—in fact the injured limb was longer than the uninjured limb—and in Case XII. of three-fourths of an inch. Now, it is an important practical fact, to which especial attention should be drawn, that asymmetry of the lower limbs complicated the evidence of a diagnosis in these four cases. To neglect this point and base a diagnosis on equality of the ordinary measurements of the lower limbs might bring avoidable disaster and detriment to both the patient and the attending surgeon. Hence, it is important to consider the subject of asymmetry in making a diagnosis of fracture of the neck of the femur, because a fracture of the femoral neck may thereby be shown to be probable—and proper treatment instituted—and legal prosecution be prevented.

From the above table and from subsequent measurement it appears that a lower limb will be shortened $\frac{1}{8}$ of an inch by a fracture of its femoral neck, and that during the treatment the limb will shorten about $\frac{1}{8}$ of an inch more.

From a theoretical point of view there need be no surprise that the lower limb does not materially shorten during treatment of fracture of the femoral neck, when we remember and appreciate two plain anatomical facts: First. There are strong facial structures going from the upper end of the femoral shaft obliquely downward and inward to the obturator membrane and the arch of bone below and at the sides of the obturator foramen. These structures act as strong ligaments to prevent the femoral shaft from going materially upward after fracture of the femoral neck—and they are assisted by the contractile force of the obturator externus muscle. Second. Femoral necks that are liable to be broken are probably mostly more or less nearly at a right angle with the femoral shaft. Hence, after fracture of the femoral neck, and during the treatment, the usual absorption of broken and contused bone will be nearly in a direction at right angles to the femoral shaft, so that absorption of the femoral neck would not cause material shortening of the injured limb. And there may be noted an important mechanical and pathological condition, namely, when the femoral brace is driven into the femoral head, but very little shortening can take place, so long as the impaction holds. And the mechanical relations are such that the femoral brace is not likely to be liberated from the grasp of the femoral head, unless severe and unwarranted force is employed to find crepitus.

Dr. Wight is aware that the above conclusions in regard to consecutive shortening

after fracture of the neck of the femur are not in accord with the accepted teachings of surgeons, and on this point he makes the following remarks:—

(1.) It is worthy of note that careful and systematic attempts have not been made to make comparative measurements of the length of the lower limb at the time of fracture of the femoral neck and subsequently. The teachings on this point are in the main founded on the opinions of surgeons.

(2.) The tilting of the pelvis—upward on the injured side—will make a difference of nearly one-half inch in the measurements of the lower limbs in favour of the limb whose femoral neck has been broken; *under such circumstances the surgeon makes the first measurements.* The consecutive tilting of the pelvis—downward on the injured side—will make a difference of nearly one-half inch in the measurements of the lower limbs in favour of the limb whose femoral neck has not been broken; *under such circumstances the surgeon makes the second or consecutive measurements.* In the first place, the injured limb measures comparatively too long; in the second place, the injured limb measures comparatively too short.

In no case of fracture of the femoral neck does he use force to find crepitus. He considers the other evidences of fracture—such as have been above enumerated—as sufficient to come to a practical conclusion. Nor does he give an anæsthetic to make an examination. In this connection he makes the following statements:—

(1.) Moving the outer fragment when it is in contact with the inner fragment, will generally carry the inner fragment with it, and there will be no crepitus. And when there is impaction, ordinary manipulation will not cause crepitus to be felt. Yet crepitus may at times be felt, when there is impaction of the neck of the femur.

(2.) Moving the outer fragment when it is not in contact with the inner fragment, of course will not give crepitus.

(3.) Hence, unwarrantable force will be required in order to get crepitus in many cases of fracture of the neck of the femur. And more than this—*an impacted fracture of the neck of the femur may be broken up by severe manipulation, and a patient that would have had a useful limb may be quite completely disabled for life—for an impacted fracture of the neck of the femur is the best setting of the bony fragments that the surgeon can have.*

(4.) In a suspected case of fracture of the neck of the femur, I examine all the witnesses of fracture except crepitus, and if these witnesses agree substantially, I pronounce a verdict in favour of fracture of the neck of the femur. And if there is a doubt as to the correctness of such a verdict, I give the patient the benefit of that doubt, by treating the case as if there was a fracture of the neck of the femur—and then the surgeon receives a benefit from the doubt. But if there is no fracture, the patient has had some days of needful rest, and has had a contused hip well treated.—*Proceedings of the Medical Society of Kings County, Oct. 1881.*

Excision of Callus.

In the number of the *Archives Générales* for August, 1881, Dr. DÉJOURS records a very interesting case of fracture of the left clavicle in a man, forty-two years of age, who at the same time received a fracture of two ribs on the left side, which so complicated the case that no proper apparatus could be applied to the clavicle. The fracture was in the usual seat, in the greatest convexity, and was attended with considerable displacement of the ends of the bone. Around these ends a large mass of callus developed, which two and a half months from the injury measured five centimetres from before backwards. This callus pressed upon the